FE67

Diagram No. 1212-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey Wire Drag

Field No. WAHI 2148

Office No. FE-67WD

LOCALITY

State New York

General Locality Long Island Sound

Locality Vicinity of Old Field Point

1948

CHIEF OF PARTY
W.F. Malnate

LIBRARY & ARCHIVES

DATE May 19, 1948

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as:

FE No.4 1948

FE67

FE No. 4
1948

Diag'd. on Diag. Ch. 1212-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG INVESTIGATION and ESTABLISHMENT OF MEASURED MILE

Field No. WAHI 2148 *Office No.*

LOCALITY

State NEW YORK

General locality LONG ISLAND SOUND

Locality VICINITY OF OLD FIELD POINT
LONG ISLAND, N.Y.

194 8

CHIEF OF PARTY

W. F. Malnate

LIBRARY & ARCHIVES

DATE MAY 19 1948

B-1870-1 (1)++

FE-4-1948

DEPARTMENT OF COMMERCE

U. S. Coast & Geodetic Survey

HYDROGRAPHIC TITLE SHEET

Field No. WAHI 2148

Register No. FE-4-1948

State New York

General locality Long Island Sound

Locality Vicinity of Old Field Point, Long Island, N. Y.

Scale 1 : 20000 Date of Survey 5 to 12 May 1948

Vessel WAINWRIGHT & HILGARD

Chief of Party W. F. Malnate

Surveyed by Field Officers

Protracted by

Soundings penciled by

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by Walter J. Chovan

Inked by

Verified by

Instructions dated 6 February 1948

Remarks

DESCRIPTIVE REPORT

SPECIAL WIRE-DRAG INVESTIGATION

AND

ESTABLISHMENT OF MEASURED MILE

FIELD NO. WAHI 2148

SHIPS WAINWRIGHT & HILGARD W.F. Malnate, Chief of Party

AUTHORITY

This investigation was made in accordance with special instructions dated 6 February 1948 and 20 February 1948. The measured mile was established in accordance with plans agreed to between the Supervisor, Eastern District, U.S. Coast and Geodetic Survey and a representive of the New York Sun.

DATE AND TYPE OF SURVEY

Field work was started 5 May 1948 and ended 12 May 1948. The purpose of the Survey was:-

(1) To locate a reported obstruction. This was accomplished by wire dragging and echo sounding. | par. 2, Review

(2) To extend an established Measured Statue Mile to a nautical mile and check it from recoverable triangulation stations.

Work to established the measured mile was accomplished when conditions did not permit wire dragging.

CONTROL

WIRE DRAG: Natural objects previously located by triangulation or objects located by a plane-table traverse run on the end launch boat sheet, or objects located by sextant cuts during this investigation were used to control the survey. End launch boat sheet destroyed after signals were transferred

MEASURED MILE: Checked from recovered triangulation stations.

SURVEY METHODS

WIRE DRAG: Standard dual control methods were used. The drag strips were controlled by three point fixes observed on fixed shore objects. Lift was determined by tests from the tender using a graduated rod coated with a mixture of white lead and tallow. The suspected area was dragged in two directions and when possible with the current to minimize lift.

Hangs were investigated by hand lead, using a skiff with outboard motor for a tender. This was not completely satisfactory as it was difficult to control the skiff in the sea and current prevailing. The hang area was further investigated by the Ship WAINWRIGHT, by echo soundings taken with an 808 Fathometer. The shoalest sdgs. are shown on the boat sheet.

RECORDS

WIRE DRAG: Standard records were kept. The diargrams have been drawn in the books and the effective depth to the nearest foot entered. Predicted tides for Port Jefferson were used for tide reducers.

Drag strips were drawn on the "Guide" launch boat sheet at the end of each days work and predicted tides used for the effective depths shown.

All references to effective depth in this report will be based on corrections using predicted tides.

ECHO SOUNDING: The positions and soundings on the positions, were recorded in the tender record, a standard hydrographic record book, while running the sounding lines. The fathogram was scanned at the end of the day and shoal soundings between positions were entered in the record book.

No bar checks could be obtained due to the existing sea conditions. The initial was set at two feet, the approximate depth of the transceivers below the surface of the water.

The positions and critical soundings were plotted on an overlay and the shoalest soundings were transferred to the boat sheet.

MEASURED MILE: The observations were inadvertently recorded in parts of three seperate volumes and have been copied and copy checked into a standard Horizontal Angle book for forwarding.

All computations have been made and checked and are forwarded with this report.

SPECIAL WIRE DRAG INVESTIGATION

The following shoal depths were found and cleared:

1. A 16 foot sounding, in Lat. 40-59.0 Long. 73-07.5, obtained by handlead, was cleared with 14 foot effective depth.

2. A 19 foot echo sounding in Lat. 40°-59.1' Long. 73°-07.42' was cleared at 18 feet.

3. A 19 foot echo sounding in Lat. 40°-58.84' Long. 73°-07.7' hung at 21 feet and pulled off. (not subsequently cleared)

4. The charted 17 foot sounding in Lat. 40-58.9' Long. 73-06.8 was cleared at 14 feet. | not considered cleared Review, par. 2.

5. Several 20 foot soundings between the above listed 19 foot soundings were all cleared by at least 14 feet.

Conditions did not permit a ~~through~~ thorough investigation of the character or extent of the shoal soundings but an examination of the fathograms indicated that the shoal soundings are widely spaced large boulders similar to those existing and visible between the high and low water line at Old Field Point.

The existing position of Buoy "11A" was determined by cuts taken at the same stage of current and checked when passed close by during dragging operations.

It is recommended that this buoy be shifted to seaward of the shoal soundings found during this survey. No recommendation has been made to the U.S. Coast Guard regarding this since this report is being forwarded upon completion of the investigation. | Buoy has been shifted seaward to φ-40° 59.17' λ-73° 07.43' H.O.N. to N. 25, 1948

Hydrographic signal LIL is a new 300' stack of the Long Island Lighting Co. located at Port Jefferson and is the most prominent landmark in the area. It is visible from the westward before Old Field Point. This was located by sextant cuts from triangulation stations, taken at the time stations were recovered for use in establishing the measured mile. ch 1 388 (1948) φ-40° 57' 32 m. λ-73° 04' 1018 m. | Cuts recorded in sdg. vols. of present investigation

ESTABLISHMENT OF MEASURED MILE

In conferring with the Supervisor of the Eastern District, U.S. Coast and Geodetic Survey and a representative of the New York Sun it was learned that two points, one statute mile apart, eastward of Old Field Point Lighthouse had been located by a local engineer. It was desired to hold the westerly point, located on the bluff and near Old Field Point Lighthouse, as the westerly end of the measured mile, and to extend the easterly point so that the distance between the two points would be one nautical mile, so that ranges for a speed trial course could be established.

The determination of the two end points by a three point fix or other means of similar accuracy was considered sufficient by the representative of the New York Sun, who is to build the ranges for the trial course. At the westerly point it was not possible to observe a three point fix without going to considerable expense to clear lines or erect signals so the point was located by determining a traverse distance from Old Point Lighthouse and computing the geographic position.

A preliminary point, 800 feet eastward of the marked statue mile was determined by a three point fix and found to be 20.2 meters short of the required mile. A new point was set and angles measured to recovered triangulation stations and the geographic position computed. The distance between the two established points was computed as 1853.~~25~~ 63 meters. Stakes were set at right angles at each end of the base to facilitate locating the end ranges when built.

Positions of ranges on following page.

Respectfully submitted,

W.F. Malnate
Lt. Comdr. C&GS
Commanding Ships
WAINWRIGHT & HILGARD

WFM/trb

Error in field computation.
Distance is 1853.63 meters.

5/28/48 C.J. Whitten

SATISTICS

WIRE DRAG

Date	Day	Positions	Stat. Mi.
10 May	A	23	1.2
11 May	B	13	1.4
12 May	C	36	4.0
	TOTAL	72	6.6

Area - 1.0 Sq. Stat. Mi.

HYDROGRAPHY

Date	Day	Positions	Stat. Mi.
1o May	A	1	--
11 May	B	26	4.2
	TOTAL	27	4.2

Area - 0.05 Sq. Stat. Mi.

TRIANGULATION

Stations Recovered 4

Stations Established 2

Stations Occupied 3

SIGNALS - SHEET WAHI 2148

TRIANGULATION

OLD - Old Field Point L.H., 1882,1939

JET - Jetty, Port Jefferson, East Breakwater Light,1931,1939

PIPE - Port Jefferson Station Standpipe, 1931, 1939

HYDROGRAPHIC

LIL - Long Island Lighting Co. Stack, Port Jefferson

TOPOGRAPHIC

DAY - Lat. 40-57.1810 m Long. 73-09-689 m

COP - Lat. 40-58-08 Long. 73-08-86

ABE - Lat. 40-58-491 Long. 73-07-849

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 28 B

GEOGRAPHIC POSITIONS

Accession No. of Computation: _____

Locality Port Jefferson Speed Trial Course Datum N. A. 1927 State New York

U. S. GOVERNMENT PRINTING OFFICE 11—10286

STATION	LATITUDE AND LONGITUDE	SECONDS IN METERS	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE		
						LOGARITHM (METERS)	METERS	FEET
	° ' "	(719.3)	° ' "	° ' "				
West Range, 1948	40 58 36.683	1131.6						
d.	73 07 06.667	155.9						
		(1247.1)						
		(1573.2)						
East Range, 1948	40 58 05.757	177.6	120 58 51.8	300 58 07.2	West Range		1853.63	6081.5
d.	73 05 58.694	1372.4						
		(30.6)						

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
~~TO BE DELETED~~ }

Port Jefferson, L.I., N.Y. 7May, 1948

I recommend that the following objects which ~~have have not~~ been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing.

W.F. Malnate, Lieut. Comdr. C&GS
Chief of Party.

GENERAL LOCALITY: Long Island Sound

NAME AND DESCRIPTION	POSITION: LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
STACK, L.I. Lighting Co. Port Jefferson	40 57	(1819) 32	73 04	(385) 1018	NA1927	Sextant	6 May 1948	x	x		361,1212
Elev. 315 Feet above MLW											
											WFM

Ch 388 (1948)

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 69675

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

(FLOATING AIDS)

TO BE CHARTED / ~~TO BE DELETED~~ } STRIKE OUT ONE

Port Jefferson, N. Y. 14 May 1948, 193

I recommend that the following objects which have ~~(have not)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing.

W. F. Malnate
Lt. Comdr., USC&GS.
Chief of Party.

GENERAL LOCALITY Long Island Sound

NAME AND DESCRIPTION	POSITION				DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE		LONGITUDE								
	° ′	D. M. METERS	° ′	D. P. METERS							
GONG "11A", Old Field Point Buoy	40 58	(189) 1662	73 07	(1094) 309	NA 1927	Topo.	5-6-48	x	x		1213 361, 1212

Ch 3 55 (1948)

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 69675

839

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~: 1 July 1948

Division of Charts: R. H. Carstens

Plane of reference approved in
3 volumes of sounding records for

~~HYDROGRAPHIC SHEET~~ FE No. 4 1948

Locality - Port Jefferson, Long Island Sound

Chief of Party: W. F. Malnate in 1948
Plane of reference is mean low water
ft. on tide staff at
ft. below B. M.

NOTE: Reducers have been checked by means of predictions at Port Jefferson Harbor Entrance, Long Island

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 154327

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .....

Records accompanying survey:

Boat sheets .....; sounding vols. .....; wire drag vols. 2.....;

bomb vols. .....; graphic recorder rolls .2...;

special reports, etc. Triangulation Computations, 5 Recovered Triang. Sta., 1 Hydro Sta., 1 Vol of Horiz. Angles), Landmarks for charts, 2 Sect. of Ch-361

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		.....
Number of positions checked		.....
Number of positions revised		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Verification by J.A.Dinsmore Total time 6 hrs. Date 4/14/49

Reviewed by J.A.Dinsmore Time 2 hrs. Date 4/14/49

note: Call attention of nautical chart section to any changes made in processing affecting chart 361 to which this examination was applied 8/16/49 Chapman

M-2232-1

REVIEW OF FIELD EXAMINATION NO. 4, 1948

1. The purpose of this field examination was to locate by wire-drag investigation a reported obstruction off Old Field Point, Long Island Sound, New York and to establish a measured nautical mile in the area to the southeastward. The survey adequately complies with the Project Instructions.

2. The work of the wire-drag investigation together with the shoalest soundings obtained by supplemental echo sounding lines are shown on the boat sheet which has been cut to envelope-filing size. The shoalest depth obtained was a 16-ft. hand-lead sounding in lat. 40° 59.0', long. 73° 07.50', which was subsequently cleared by 14-ft. effective depth. The other shoal soundings obtained in this vicinity are adequately discussed in the Descriptive Report and appear on the boat sheet.

   The "reported obstruction" charted in lat. 40° 58.99', long. 73° 07.22', should be disregarded. In its charted position which originates with H.O. Notice to Mariners No. 5, 1948, the"obstruction" was cleared by an effective drag depth of 18 feet. The "Obstruction" is probably the 16 ft. sounding obtained about 350 meters westward on the present survey.

   The 17-ft. prior sounding charted in lat. 40° 58.90', long. 78° 06.80', falls so close to the edge of the drag strip that it cannot be considered to have been cleared by the 14 ft. effective drag depth.

3. The position of gong buoy "11-A" was determined during the survey to be about 100 meters north of its charted position. This buoy has been subsequently moved seaward to lat. 40° 59.17', long. 73° 07.43' (H.O. Notice to Mariners, 25, 1948).

4. The method of establishing the measured nautical mile is adequately discussed in the Descriptive Report which contains an abstract of the geographic positions of the East and West ranges of the mile. The measured mile is shown on a section of Chart 361 which is filed with the records of this work.

Reviewed by: T. A. Dinsmore April 14, 1949

Inspected by: R. H. Carstens

TO ACCOMPANY H

FENo.4 1948

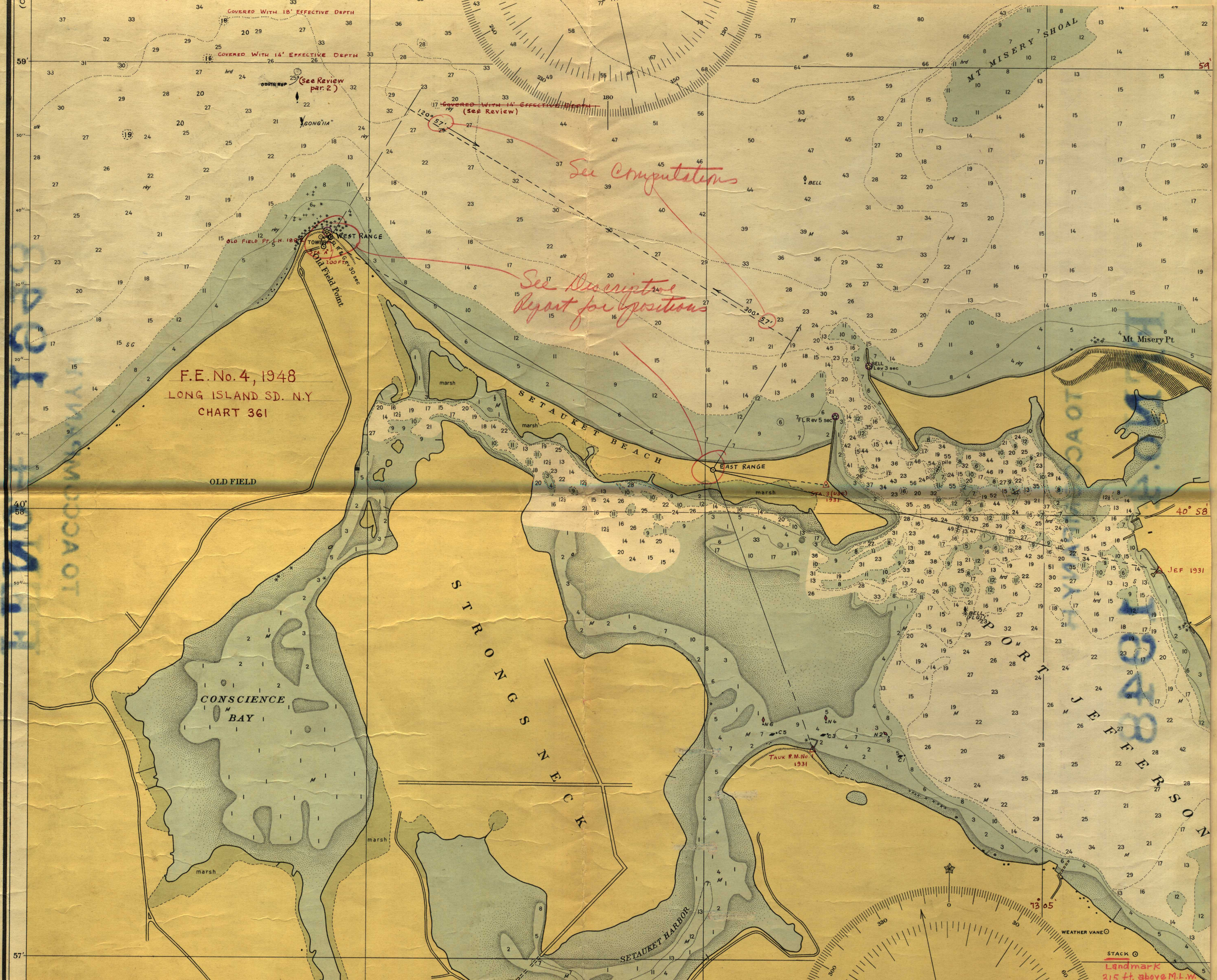
TO ACCOMPANY H

FENo.4 1948

4IS-23,26,27

AI-185

Fort Jefferson

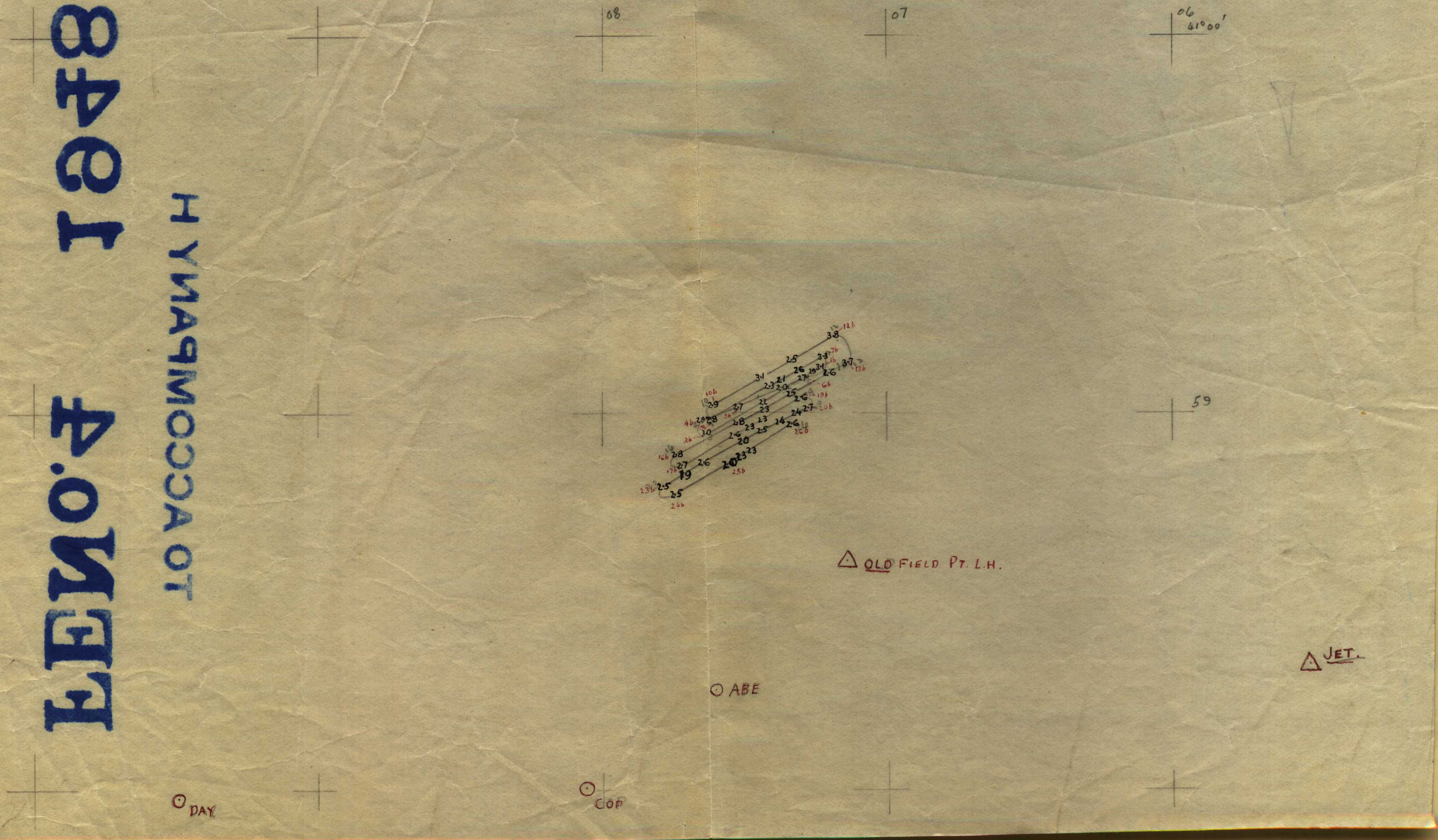

F.E. No. 4, 1948
LONG ISLAND SD. N.Y
CHART 361
COVERED WITH 18' EFFECTIVE DEPTH
COVERED WITH 14' EFFECTIVE DEPTH
COVERED WITH 14' EFFECTIVE DEPTH
(See Review)
OBSTR REP
(See Review par. 2)
GONG "11A"
See Computations
See Descriptive Report for positions
120° 57'
300° 57'
MT MISERY SHOAL
BELL
Mt Misery Pt
BELL Fl ev 3 sec
FL R ev 5 sec
OLD FIELD PT. L.H. 18…
WEST RANGE
TOWER
STA. "A"
200 FT.
Fl R & G ev 30 sec
Old Field Point
OLD FIELD
SETAUKET BEACH
marsh
EAST RANGE
STA. 3 (USE) 1931
STRONGS NECK
CONSCIENCE BAY
SETAUKET HARBOR
TAUK R.M. No. 1 1931
N 6
C 5
N 4
C 3
N 2
C 1
BELL (FL G) "1"
pile
PORT JEFFERSON
JEF 1931
40° 58'
59'
57'
73° 05'
WEATHER VANE
STACK
Landmark 215 ft. above M.L.W.

F. E. No. 4, 1948

overlay for port Jefferson Sheet
off Old Field Point, L.I.

Scale 1:20,000

WAHI - 2148



F. E. No. 4, 1948

LONG ISLAND SOUND N.Y.

VIC. OF OLD FIELD POINT

(1:20,000)

59'

Old Field Pt L.H. 1882, 1939

Jetty, Port Jefferson, East Breakwater Light, 1931, 1939

Abe

Bag

Station 3

(Grave) ~~Port Jefferson~~ West Light

(Chan) Now existant

Jef, 1931, 1939

Day

Crane Neck

Cop

Conscience

Tauk, 1931, 1939

Shark, Long Island

40° 58'

57'

73° 10'

09'

08'

07'

06'

73° 05'

04'

F.E.4 applied to chart 361 - Completely before Ver and Review
Stegman 8/16/48

Completely applied to Ch 361 after review - McGlasson - Walker